Dear CS124 Grader,

My data is a collection of the largest cities in the US by population. Each city by default is listed in order from the greatest population to the least. This data was collected in 2013, and is one of the more recent data sets available already in the form of a .txt or a .csv file. This data is also very interesting. Cities are constantly growing and shrinking at the same time, especially these large cities. Each entry has 5 attributes, including the city name (string), the state of the city (string), the population of the city (integer), the rank of the city in terms of population (integer), and the percent growth in terms of population from 2000 to 2013 (double). Each of these attributes are fields of my City class.

There are getters and setters because there is no sensitive data. Although not all getters and setters are used, I still left them because I know in the future they will be likely be used for other projects. There is no input checking, because all data is perfectly sorted into a combination of strings, integers, and doubles.

For my function, I decided to total the populations of each city. In the top 1000 largest cities in the US, there are 131132443 people. My function has linear complexity because it only loops through the vector and keeps track of the total population.

I overloaded the << operator, even though it is not used in this project. It will be useful to have for the future, when I add to the code for projects to come. Displaying City object data is easy using the << operator.

Sincerely,
Max Peck